



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/756,503	01/08/2001	Essam Sourour	4015-863	5587
24112	7590	08/06/2004	EXAMINER	
COATS & BENNETT, PLLC P O BOX 5 RALEIGH, NC 27602			WONG, BLANCHE	
			ART UNIT	PAPER NUMBER
			2667	
DATE MAILED: 08/06/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/756,503	SOUROUR ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Blanche Wong	2667	

— The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM  
 THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on 08 January 2001.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 1-23 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) 1-23 is/are allowed.  
 6) Claim(s) \_\_\_\_\_ is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>#3,4/Aug01,Oct02</u> .	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____

**QUAYLE ACTION**

1. This application is in condition for allowance except for the following formal matters:

Claims 3 and 5, both in ln. 1, recite "The channel allocation method of claim 2 wherein assigning to said said user" should be -- The channel allocation method of claim 2 wherein assigning said said user – without the word "to".

Claim 4, ln. 1-2, recites "The channel allocation method of claim 3 wherein assigning said user said spreading code from said non-preferred set" should be -- The channel allocation method of claim 3 wherein assigning said user a spreading code from a non-preferred set –, as recited in claim 2.

Claim 11, ln. 1, recites "said controller" should be – said base station controller --, as used in claims 12-18.

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

***Information Disclosure Statement***

2. The information disclosure statement, specifically the document DE 19843664 A, dated August 21, 2001 and October 4, 2002, fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently

understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each patent listed that is not in the English language. A copy of translation if a written English-language translation of a non-English-language document, or portion thereof, is within the possession, custody, or control of, or is readily, available to any individual designated in 37 CFR 1.56(c), specifically under 37 CFR 1.98(a)(3)(ii). DE 19843664 A has been placed in the application file, but the information referred to therein has not been considered. Applicant is requested to provide a translation of the document DE 19843664 A.

***Allowable Subject Matter***

3. The following is an examiner's statement of reasons for allowance:

With regard to claim 1, the prior art of record fails to anticipate or make obvious the step "assigning said user a spreading code from one of said groups of spreading codes selected based on said user's mobility." Koo et al. (U.S. Pat No. 6,504,832) and Kim et al. (U.S. Pat No. 6,477,157) both discloses two groups of spreading codes, namely Walsh codes and quasi-orthogonal codes, and channel assignment based on resource configuration or availability. However, Koo and Kim fail to expressly show assignment based on a user's mobility. Motorola (WO 9912275)(provided by Applicant) discloses adaptive power control based on remote unit speed. Although channel transmission between base station and remote unit is based on this system condition, Motorola fails to explicitly show channel assignment using a spreading code from two groups of spreading codes. Matsushita (EP 0809373 A)(provided by Applicant)

discloses spreading codes assignment based on prescribed quality value, but fails to expressly show neither two groups of spreading codes nor a prescribed quality value based on a user's mobility. Shin (U.S. Pat No. 6,741,550) discloses allocation of optimum Walsh code, but also fails to expressly show neither two groups of spreading codes nor optimization based on a user's mobility.

With regard to claim 10, the prior art of record fails to anticipate or make obvious "a base station controller ... to assign a spreading code to at least one of said users based on said at least one user's mobility." Edwards et al. (U.S. Pat No. 6,198,734) and (U.S. Pat No. 6,275,486) disclose adaptive resource allocation based on the characteristics of a signal by the BSC. However, Edwards fails to explicitly show the characteristics of a signal based on a user's mobility. Gourgue et al. (U.S. Pat No. 6,560,194) discloses allocation and rearranging allocated codes in response to a code allocation request. However, Gourgue discloses allocation based on a 'tree capacity'. Mabnusson et al. (U.S. Pat NO. 6,163,524) discloses code allocation and re-allocation to new and existing channels to maximize the number of codes available at a given time. However, Magnusson also made no showing based on a user's mobility.

With regard to claim 19, the prior art of record fails to anticipate or make obvious "assigning selected users to at least one spreading code selected from said non-preferred set of spreading codes ... wherein said users assigned non-preferred spreading codes are selected based on the mobility of the said users." See explanation regarding claim 1.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Lee et al. (U.S. Pat No. 6,496,497) discloses allotting priority Walsh codes where the priority is defined as the peak versus average power. The BSC does the allocation. Walsh codes are divided into main queue and sub-queue where the main queue includes Walsh codes having excellent peak factor.

Oses et al. (U.S. Pat No. 6,747,994) discloses unallocated system resources, such as unused Walsh codes based on transmission power.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Blanche Wong whose telephone number is 703-305-8963. The examiner can normally be reached on Monday through Friday, 830am to 530pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi H Pham can be reached on 703-305-4378. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RW

BW  
August 2, 2004



CHAU NGUYEN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600